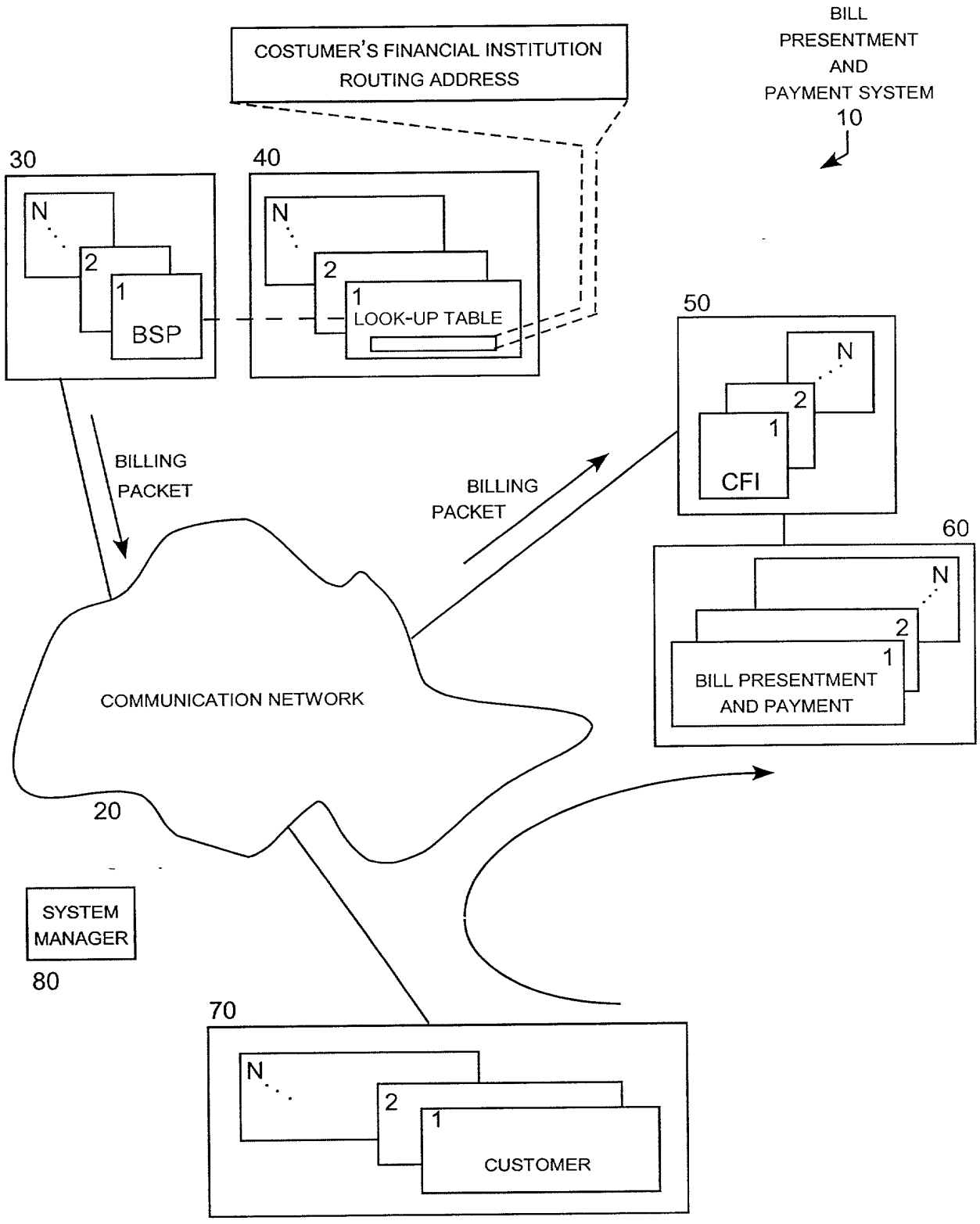
BILL
PRESENTMENT
AND
PAYMENT SYSTEM
10
COSTUMER'S FINANCIAL INSTITUTION
ROUTING ADDRESS
30
N
2
1
BSP
40
N
2
1
LOOK-UP TABLE
50
N
2
1
CFI
60
N
2
1
BILL PRESENTMENT
AND PAYMENT
BILLING
PACKET
BILLING
PACKET
COMMUNICATION NETWORK
20
SYSTEM
MANAGER
80
70
N
2
1
CUSTOMER

FIG. 1

FOREIGN PATENT

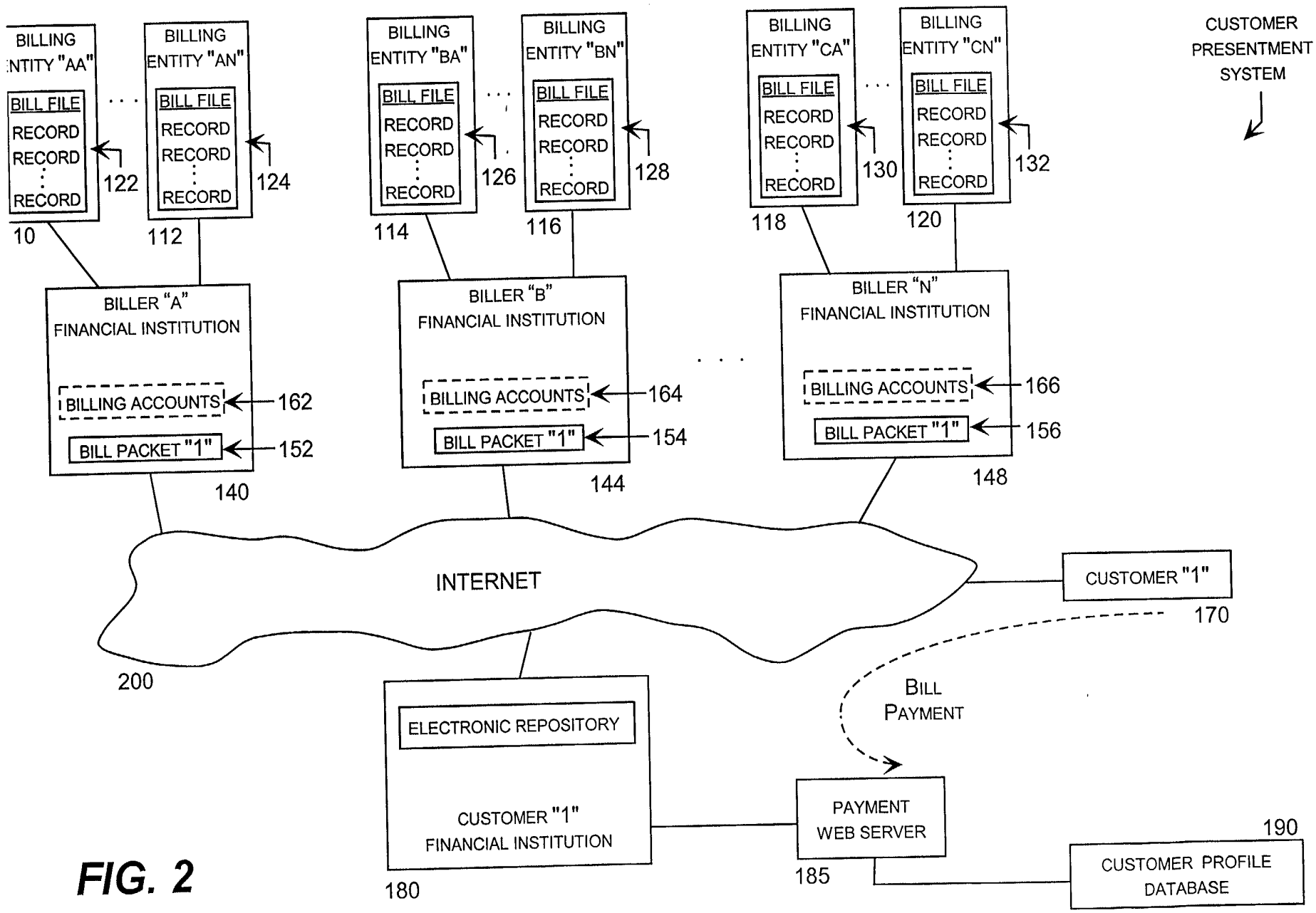

FIG. 2

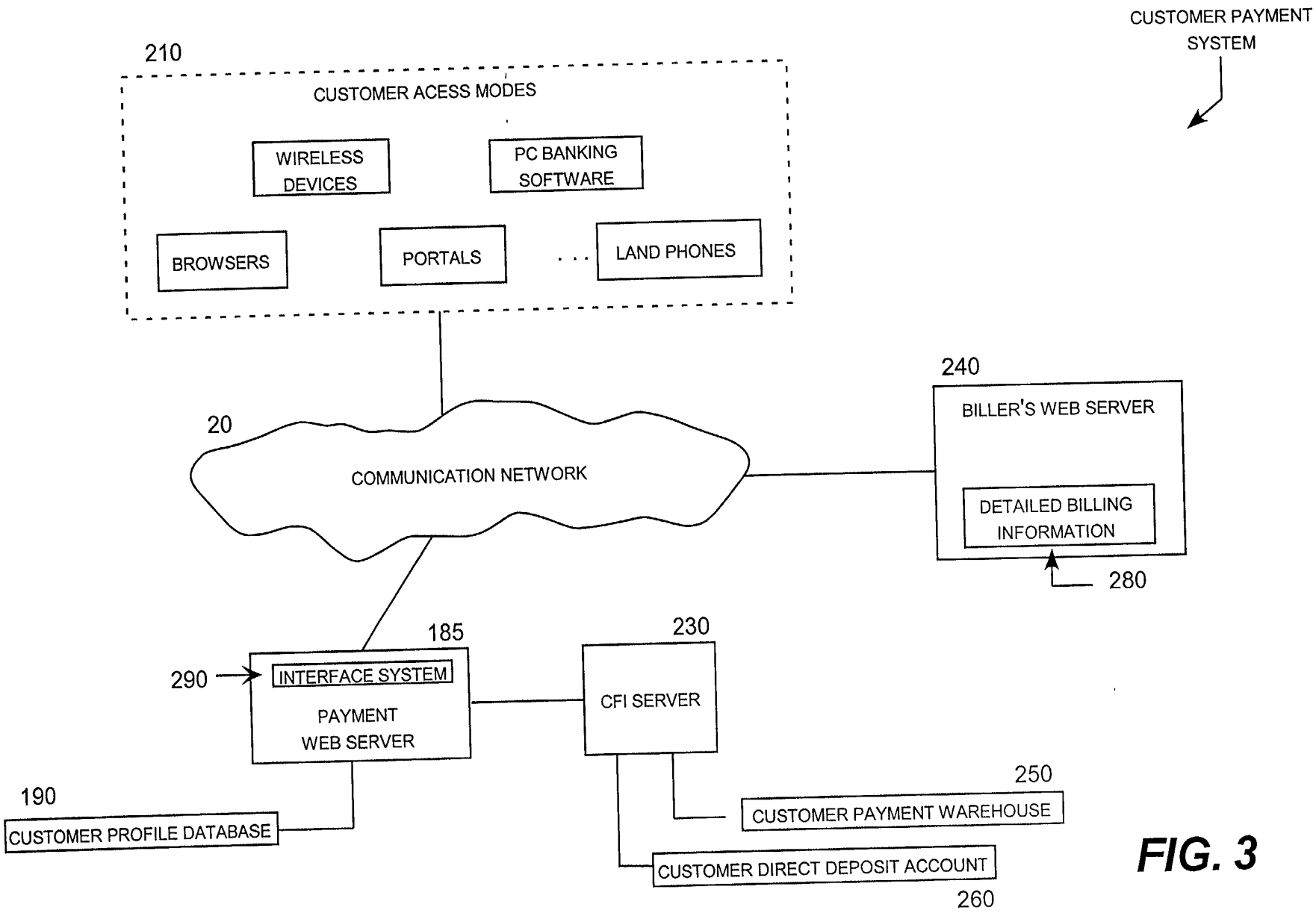
CUSTOMER PAYMENT SYSTEM
210
CUSTOMER ACESS MODES
WIRELESS DEVICES
PC BANKING SOFTWARE
BROWSERS
PORTALS
LAND PHONES
20
COMMUNICATION NETWORK
240
BILLER'S WEB SERVER
DETAILED BILLING INFORMATION
280
185
230
290
INTERFACE SYSTEM
PAYMENT WEB SERVER
CFI SERVER
190
CUSTOMER PROFILE DATABASE
250
CUSTOMER PAYMENT WAREHOUSE
CUSTOMER DIRECT DEPOSIT ACCOUNT
260

FIG. 3

FOTEFO" E98h<<60

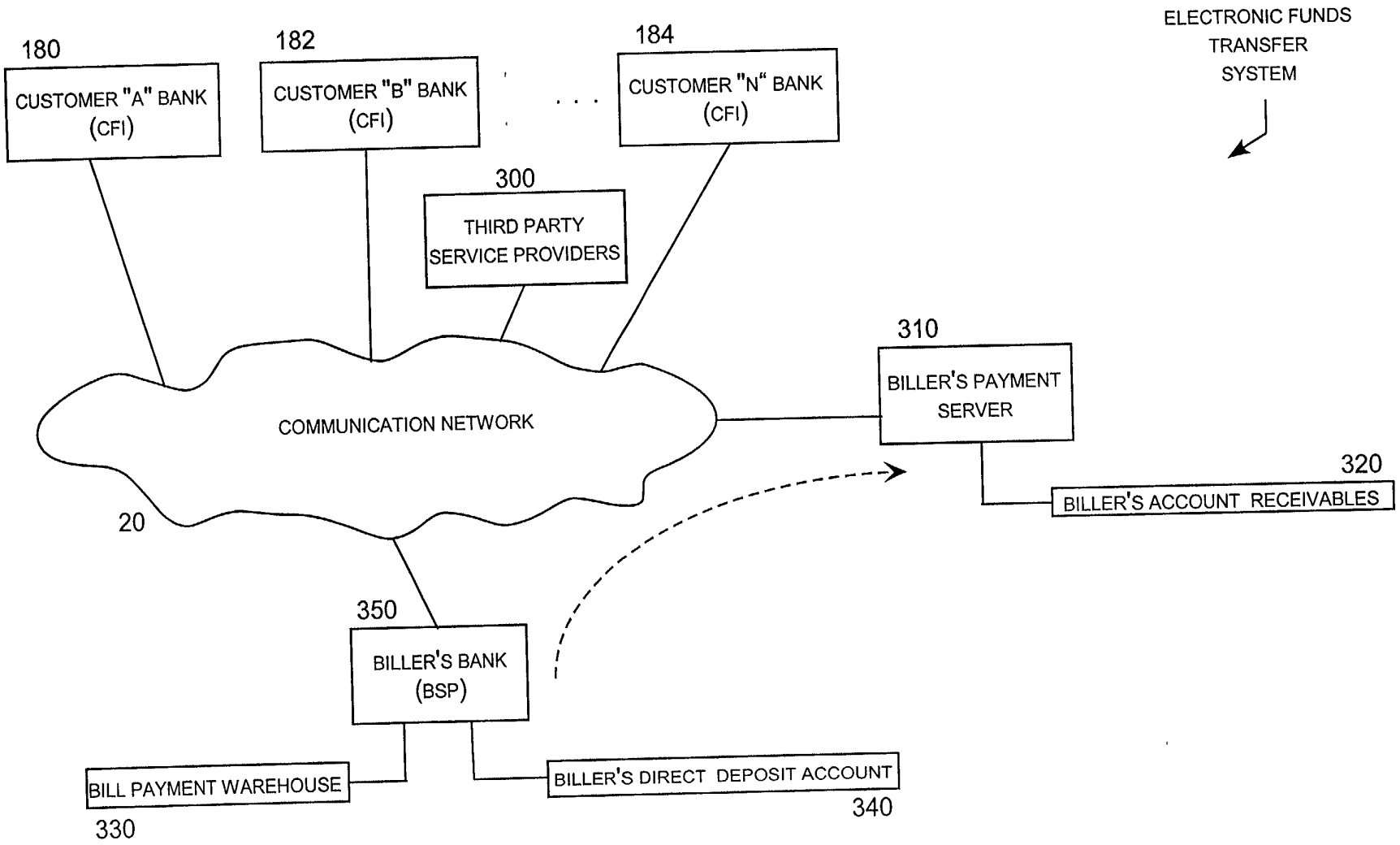

FIG. 4

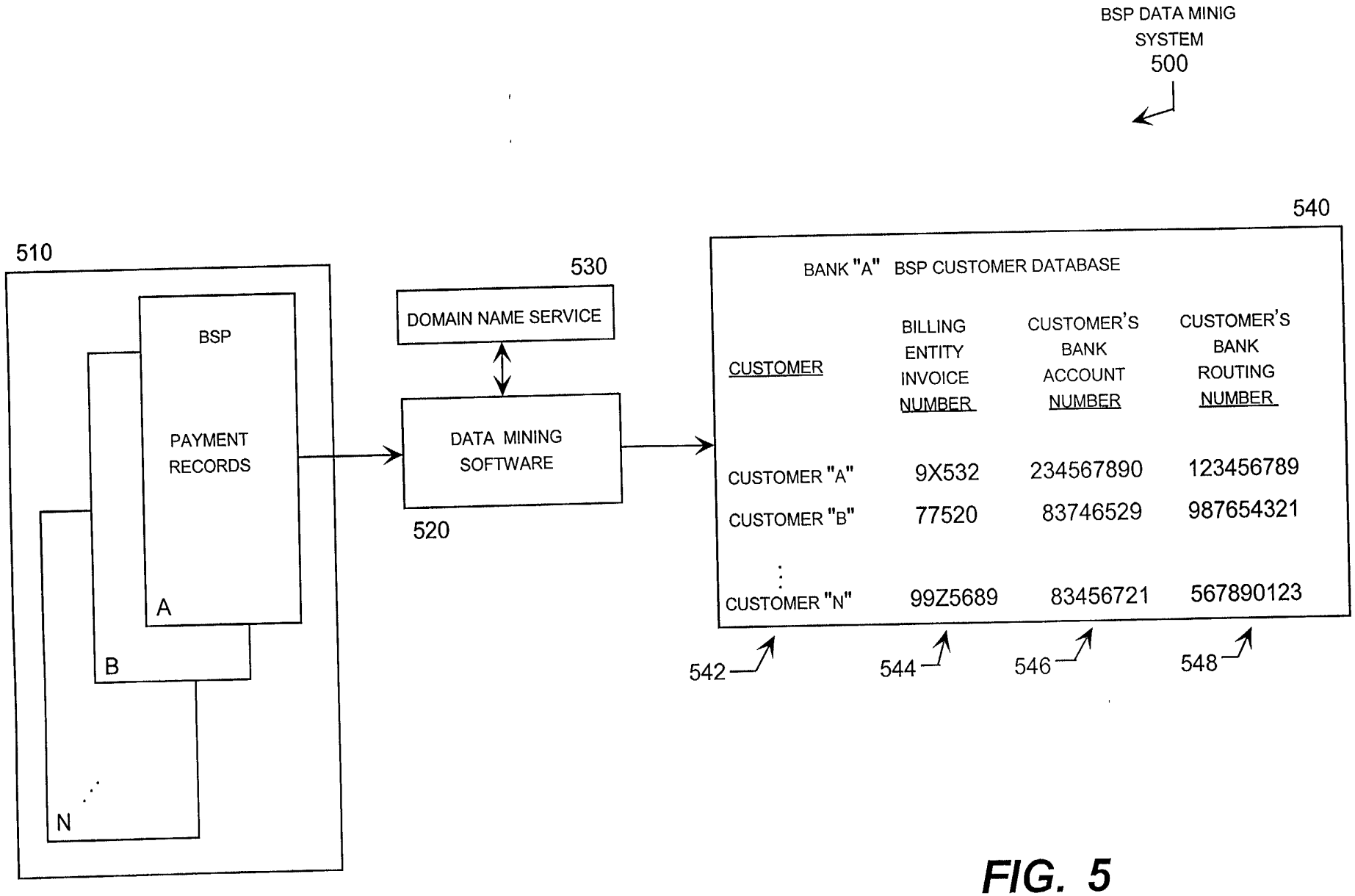
BSP DATA MINIG SYSTEM
500
510
BSP
PAYMENT RECORDS
A
B
N
530
DOMAIN NAME SERVICE
DATA MINING SOFTWARE
520
540
BANK "A" BSP CUSTOMER DATABASE
CUSTOMER
BILLING ENTITY INVOICE NUMBER
CUSTOMER'S BANK ACCOUNT NUMBER
CUSTOMER'S BANK ROUTING NUMBER
CUSTOMER "A" 9X532 234567890 123456789
CUSTOMER "B" 77520 83746529 987654321
CUSTOMER "N" 99Z5689 83456721 567890123
542
544
546
548

FIG. 5

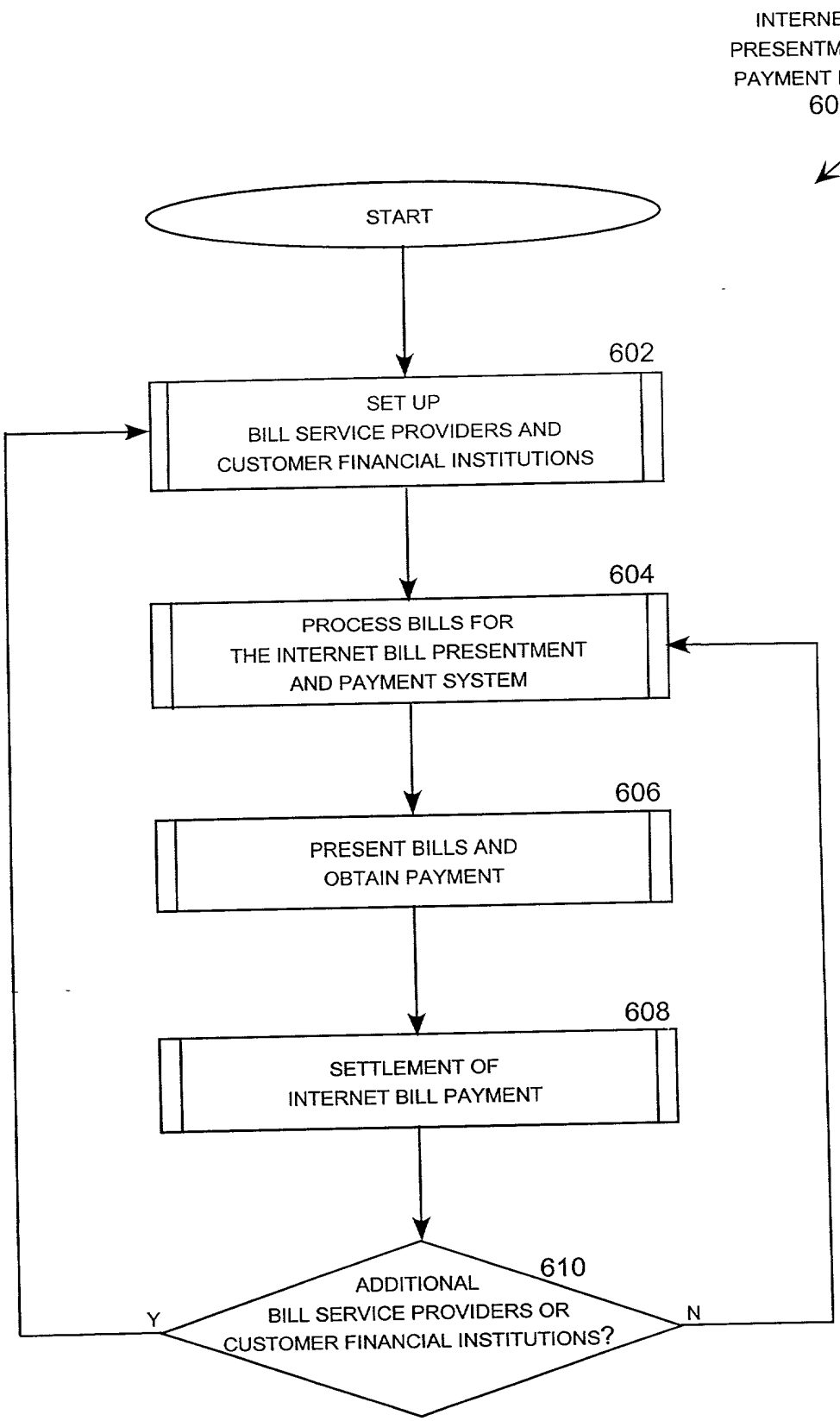
INTERNET BILL
PRESENTMENT AND
PAYMENT ROUTINE
600
START
602
SET UP
BILL SERVICE PROVIDERS AND
CUSTOMER FINANCIAL INSTITUTIONS
604
PROCESS BILLS FOR
THE INTERNET BILL PRESENTMENT
AND PAYMENT SYSTEM
606
PRESENT BILLS AND
OBTAIN PAYMENT
608
SETTLEMENT OF
INTERNET BILL PAYMENT
610
ADDITIONAL
BILL SERVICE PROVIDERS OR
CUSTOMER FINANCIAL INSTITUTIONS?
Y
N

FIG. 6

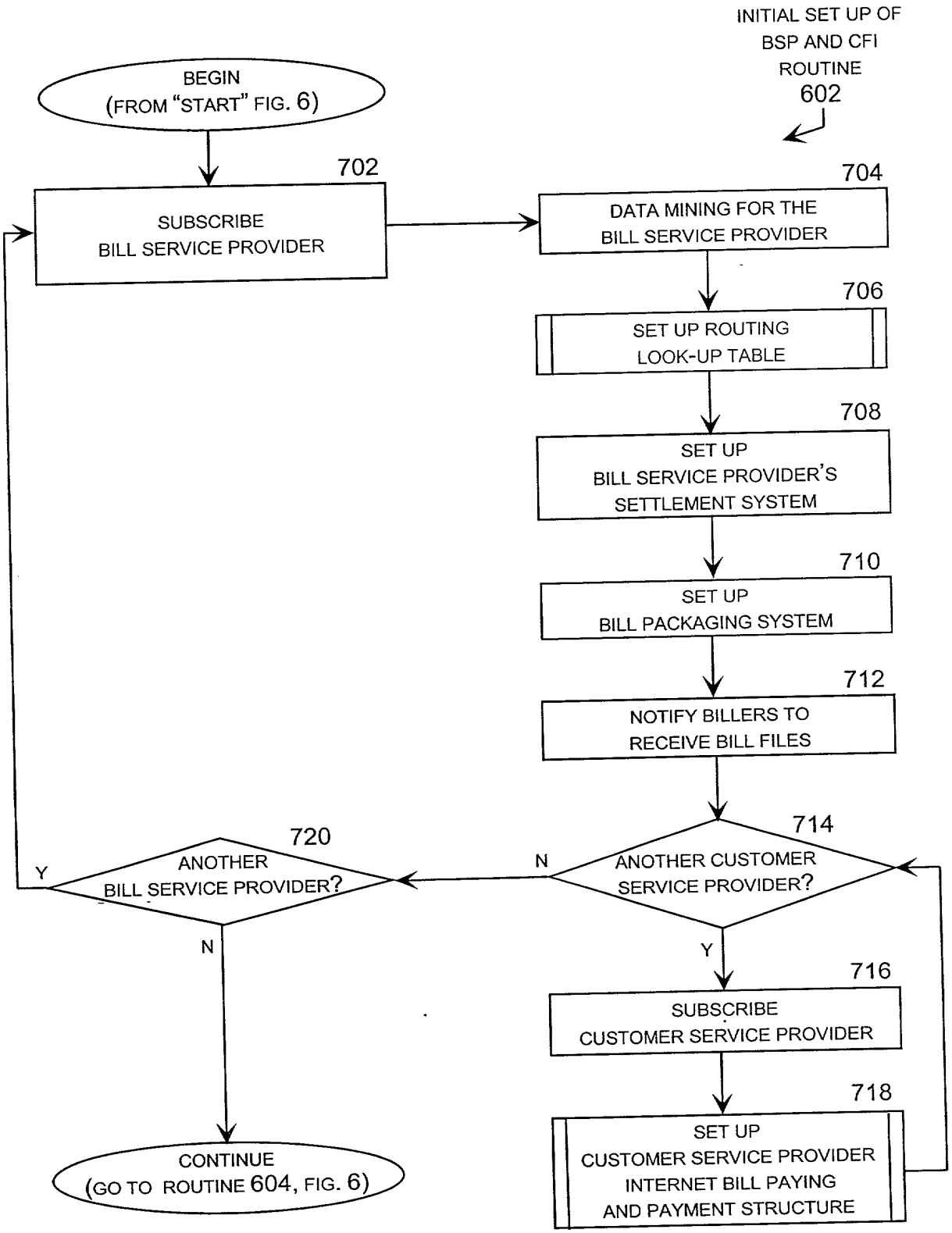
INITIAL SET UP OF
BSP AND CFI
ROUTINE
602
BEGIN
(FROM "START" FIG. 6)
702
SUBSCRIBE
BILL SERVICE PROVIDER
704
DATA MINING FOR THE
BILL SERVICE PROVIDER
706
SET UP ROUTING
LOOK-UP TABLE
708
SET UP
BILL SERVICE PROVIDER'S
SETTLEMENT SYSTEM
710
SET UP
BILL PACKAGING SYSTEM
712
NOTIFY BILLERS TO
RECEIVE BILL FILES
714
ANOTHER CUSTOMER
SERVICE PROVIDER?
N
Y
720
ANOTHER
BILL SERVICE PROVIDER?
Y
N
716
SUBSCRIBE
CUSTOMER SERVICE PROVIDER
718
SET UP
CUSTOMER SERVICE PROVIDER
INTERNET BILL PAYING
AND PAYMENT STRUCTURE
CONTINUE
(GO TO ROUTINE 604, FIG. 6)

FIG. 7

SET UP
ROUTING
LOOK-UP TABLE
ROUTINE
706

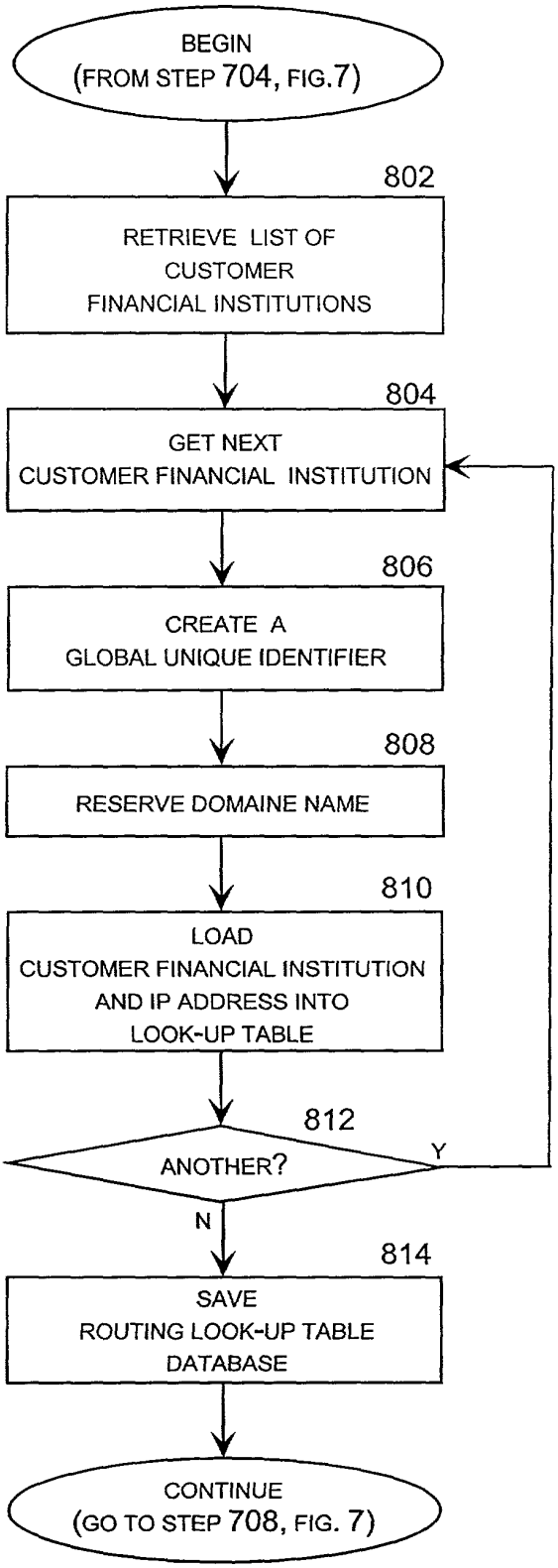

FIG. 8a

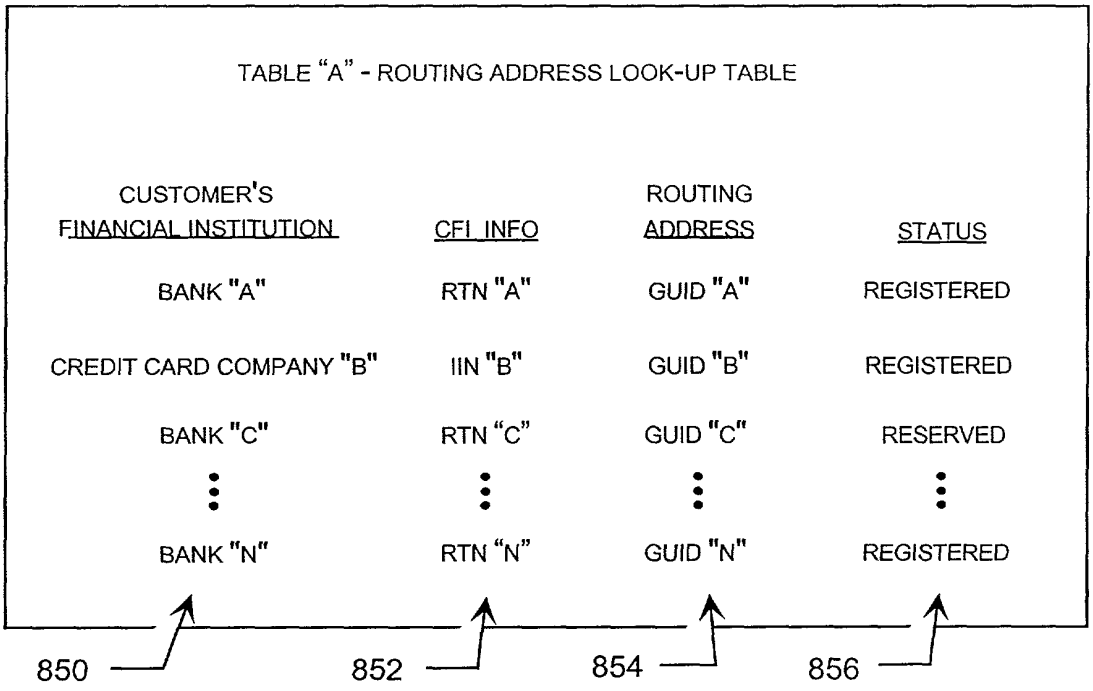
TABLE "A" - ROUTING ADDRESS LOOK-UP TABLE
CUSTOMER'S FINANCIAL INSTITUTION
CFI_INFO
ROUTING ADDRESS
STATUS
BANK "A"
RTN "A"
GUID "A"
REGISTERED
CREDIT CARD COMPANY "B"
IIN "B"
GUID "B"
REGISTERED
BANK "C"
RTN "C"
GUID "C"
RESERVED
BANK "N"
RTN "N"
GUID "N"
REGISTERED
850
852
854
856

FIG. 8b

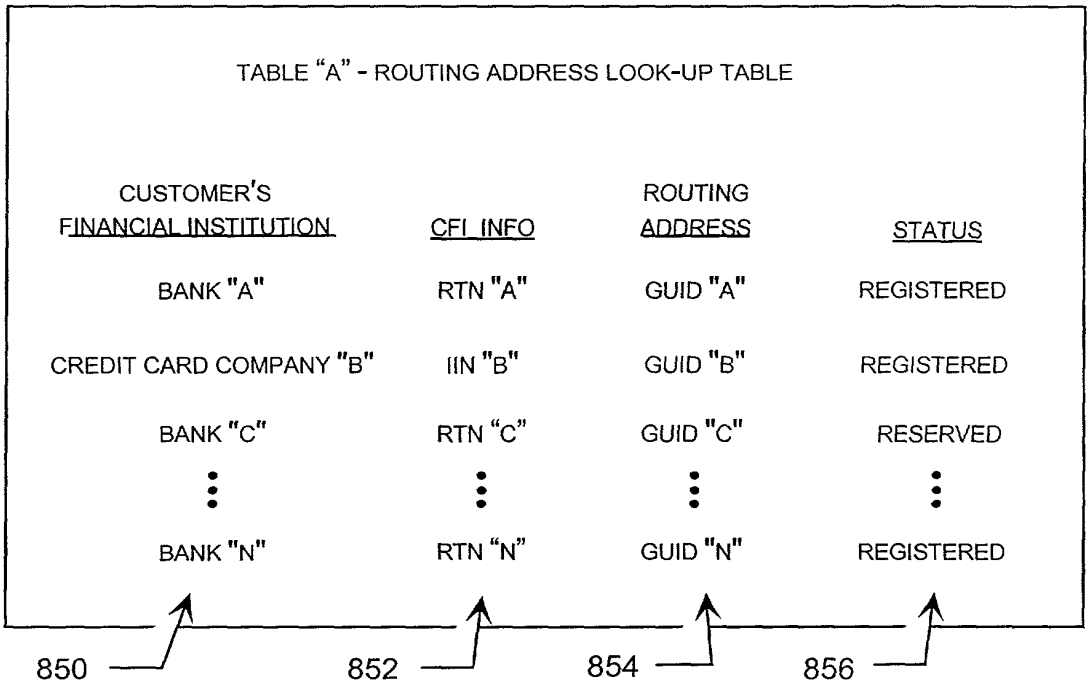
TABLE "A" - ROUTING ADDRESS LOOK-UP TABLE
CUSTOMER'S FINANCIAL INSTITUTION
CFI_INFO
ROUTING ADDRESS
STATUS
BANK "A"
RTN "A"
GUID "A"
REGISTERED
CREDIT CARD COMPANY "B"
IIN "B"
GUID "B"
REGISTERED
BANK "C"
RTN "C"
GUID "C"
RESERVED
BANK "N"
RTN "N"
GUID "N"
REGISTERED
850
852
854
856

FIG. 8b

CUSTOMER FINANCIAL INSTITUTION
SET UP
ROUTINE
718

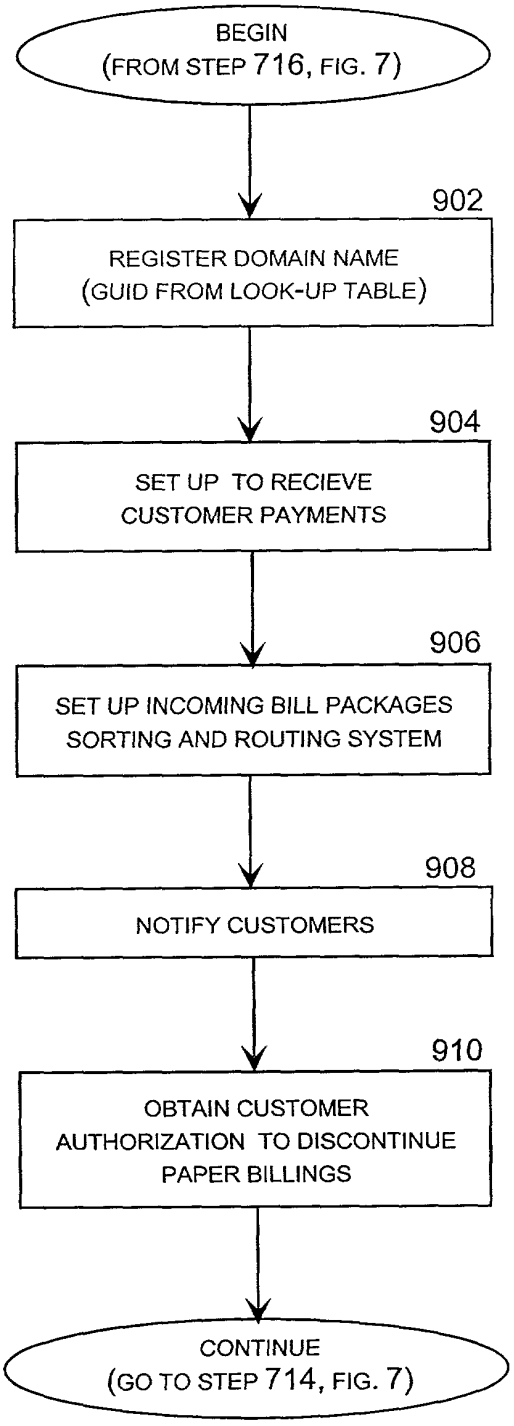

FIG. 9

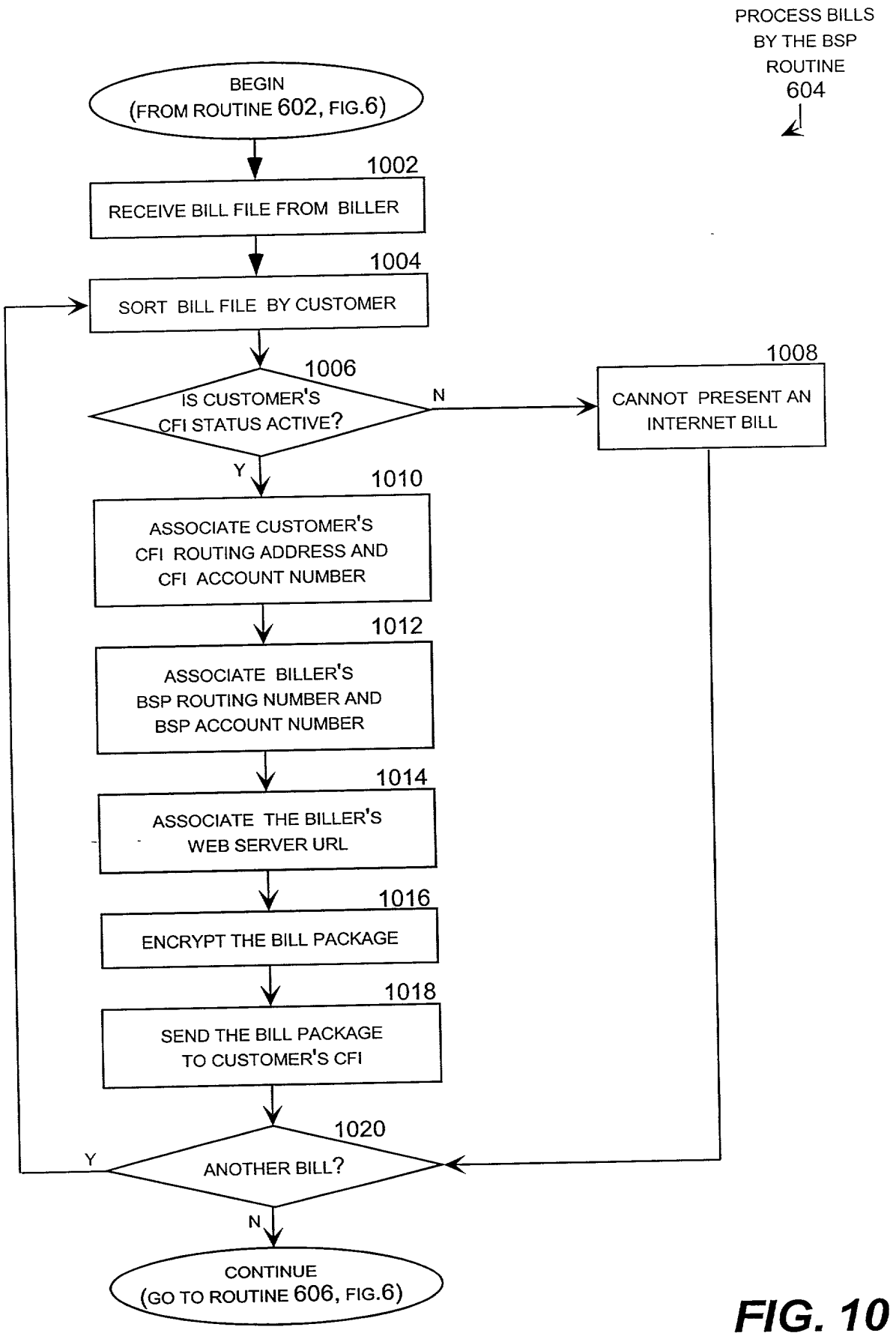
PROCESS BILLS
BY THE BSP
ROUTINE
604
BEGIN
(FROM ROUTINE 602, FIG.6)
1002
RECEIVE BILL FILE FROM BILLER
1004
SORT BILL FILE BY CUSTOMER
1006
IS CUSTOMER'S
CFI STATUS ACTIVE?
N
1008
CANNOT PRESENT AN
INTERNET BILL
Y
1010
ASSOCIATE CUSTOMER'S
CFI ROUTING ADDRESS AND
CFI ACCOUNT NUMBER
1012
ASSOCIATE BILLER'S
BSP ROUTING NUMBER AND
BSP ACCOUNT NUMBER
1014
ASSOCIATE THE BILLER'S
WEB SERVER URL
1016
ENCRYPT THE BILL PACKAGE
1018
SEND THE BILL PACKAGE
TO CUSTOMER'S CFI
1020
ANOTHER BILL?
Y
N
CONTINUE
(GO TO ROUTINE 606, FIG.6)

FIG. 10

PRESENT BILLS ROUTINE 606

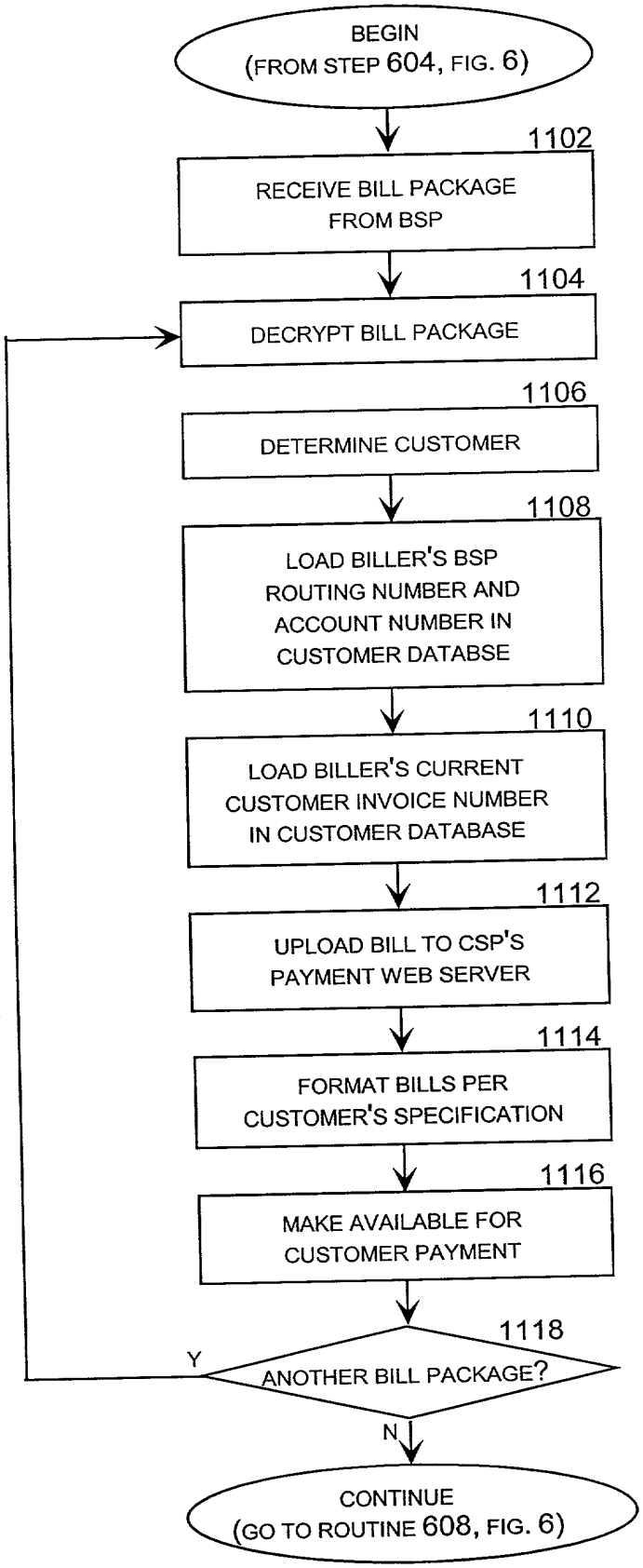

FIG. 11

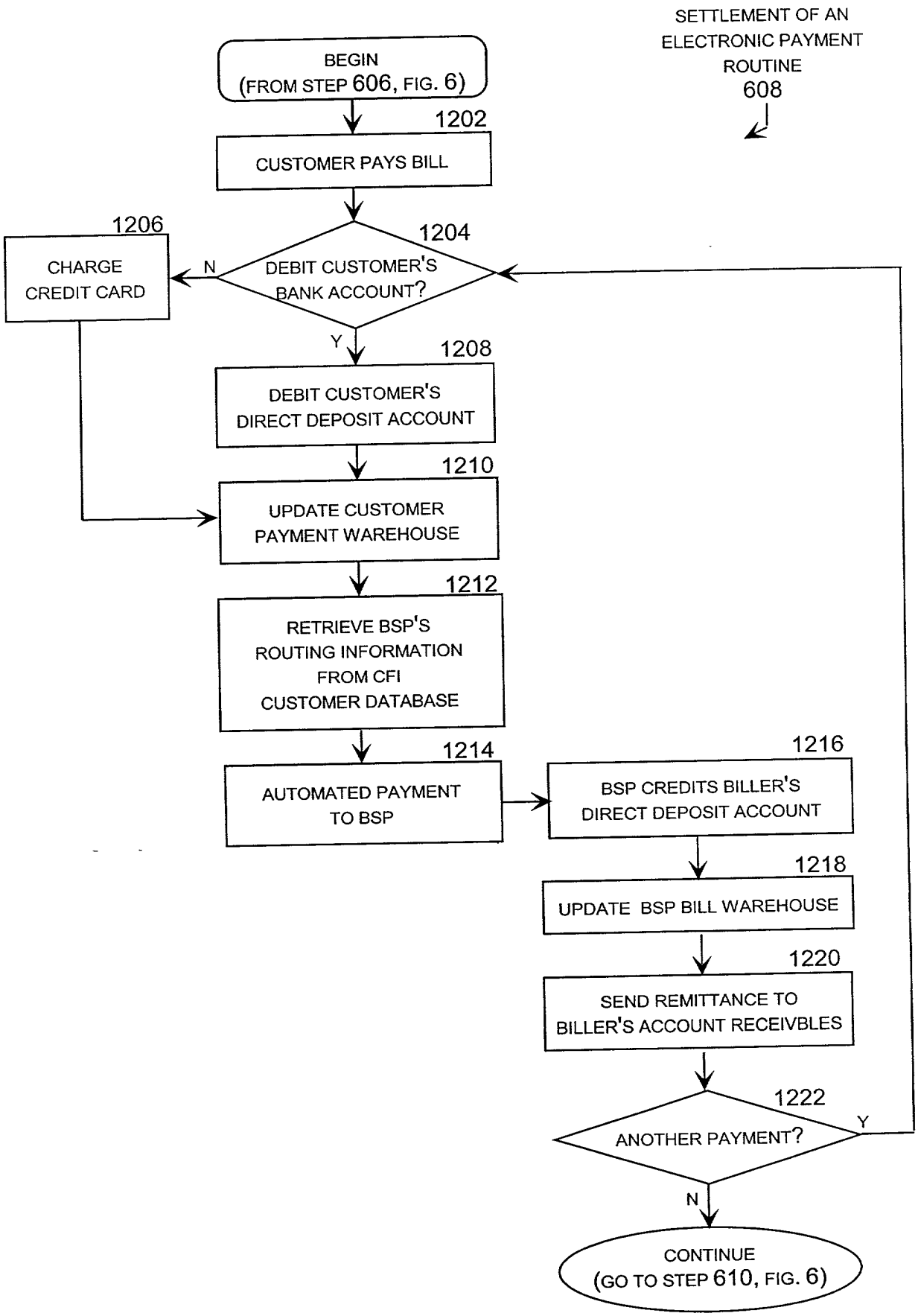
SETTLEMENT OF AN ELECTRONIC PAYMENT ROUTINE
608
BEGIN
(FROM STEP 606, FIG. 6)
1202
CUSTOMER PAYS BILL
1204
DEBIT CUSTOMER'S BANK ACCOUNT?
N
1206
CHARGE CREDIT CARD
Y
1208
DEBIT CUSTOMER'S DIRECT DEPOSIT ACCOUNT
1210
UPDATE CUSTOMER PAYMENT WAREHOUSE
1212
RETRIEVE BSP'S ROUTING INFORMATION FROM CFI CUSTOMER DATABASE
1214
AUTOMATED PAYMENT TO BSP
1216
BSP CREDITS BILLER'S DIRECT DEPOSIT ACCOUNT
1218
UPDATE BSP BILL WAREHOUSE
1220
SEND REMITTANCE TO BILLER'S ACCOUNT RECEIVBLES
1222
ANOTHER PAYMENT?
Y
N
CONTINUE
(GO TO STEP 610, FIG. 6)

FIG. 12